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S. Hrg. 101-695

FAA AUTHORIZATION

HEARING

BEFORE THE

SUBCOMMITTEE ON AVIATION

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

SECOND SESSION

ON

S. 2268

TO AMEND THE AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982 FOR THE PURPOSE OF EXTENDING THE AUTHORIZATION OF APPROPRIATIONS FOR AIRWAY IMPROVEMENTS, AND FOR OTHER PURPOSES

APRIL 27, 1990

Printed for the use of the
Committee on Commerce, Science, and Transportation

U.S. GOVERNMENT PRINTING OFFICE

30-581 O WASHINGTON : 1990

For sale by the Superintendent of Documents, Congressional Sales Office
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S261-55

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REAUTHORIZATION OF THE FEDERAL AVIATION ADMINISTRATION

FRIDAY, APRIL 27, 1990

U.S. SENATE,
SUBCOMMITTEE ON AVIATION,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The subcommittee met, pursuant to notice, at 9 a.m., in room SR-253, Russell Senate Office Building, Hon. Wendell H. Ford (chairman of the subcommittee) presiding.

Staff members assigned to this hearing: Carol Carmody and Sam Whitehorn, professional staff members and John Timmons, minority staff counsel.

OPENING STATEMENT BY SENATOR FORD

Senator FORD. Good morning, ladies and gentlemen. Welcome to you, Admiral Busey.

For the record this morning, I would like to compliment you. We seem to be at cross purposes on occasion, but your testimony was up here yesterday by noon or a little after. And this is so unusual for the Department of Transportation. They usually fax it up here about 7:00 p.m. the night before, and that is a draft statement. And so, it was so unusual that we were almost in shock yesterday afternoon. I want you to know we do compliment you and do thank you for that.

We are here this morning to begin consideration of the reauthorization of the Federal Aviation Administration programs, and we will refer to that as the FAA. I do not know of an agency that performs more difficult and more important work than the FAA, and I take very seriously our responsibility on the Aviation Subcommittee to ensure adequate resource levels for this agency.

That is why I introduced S. 2268 which would authorize the FAA's capital equipment program, known as F&E, and the research program, RE&D, for a period of two years at levels somewhat higher than the administration proposes. I believe we need to concentrate in these areas, spend what is needed and apply some of the $7.6 billion balance in the trust fund for safety and capacity needs. I hope we can spend more of the trust fund for FAA operating costs if the capital needs are met first.

In the Airport and Airway Safety and Capacity Expansion Act of 1987, we authorized the FAA capital and research programs through fiscal year 1990. That was done so that we might take a look in three years to see how the FAA is progressing with the na-

tional air space system plan, the NAS plan, and how they are proceeding with R&D work.

I would like Admiral Busey to tell us this morning if the major delays in the NAS plan are behind us now and how he intends to implement new technologies while maintaining operations.

I would also like to hear about the FAA plans and requirements in the research areas of human factors, capacity expansion and crash worthiness.

The 1987 act also authorized the airport grant program through 1992. My bill would put all the FAA programs on the same cycle. By 1992 I hope that we will have spent down the trust fund balance some, and then we can look at all the programs and determine what is needed for the FAA for the next period of three or five years.

I do not have any interest in the administration's proposal to increase user fees while we have not been able to spend what we have already collected. I am not sympathetic to suggestions to allow local airport authorities to level head taxes on passengers for the same reason.

I believe we need to keep the FAA moving ahead with modernization, with research, with continuing to ensure the safe operation of the national air space. At the same time, I think we in the Senate, our counterparts in the House and the FAA need to participate in an aviation summit. We need to talk about revenues, priorities, technical programs, grant programs, in fact, the whole aviation agenda. If we can do that, I hope the next time we address reauthorization, we can complete our work of establishing a framework to ensure the continued growth and expansion of our aviation system.

Having said that, Admiral, we are delighted that you are here this morning, and I certainly look forward to your testimony. Again, thank you for being so prompt with your statement to the staff and to the committee.

I have opening statements from Senators Hollings and Kasten that I will insert in the record at this point.

[The statements and bill follow:]

OPENING STATEMENT BY THE CHAIRMAN

Today's hearing will look at the reauthorization of the Federal Aviation Administration's programs. The Federal Aviation Administration has many responsibilities, but perhaps most critical to all of us are its safety functions. The FAA also plays a crucial role in airport development, and is a leader in promoting the aviation interests of the United States. Admiral Busey has a difficult task in ensuring that the FAA's mission is carried out. I appreciate his efforts, and desires to maintain and upgrade the system for all users. The Admiral and I do not disagree on the needs, but rather the means at this point.

Senator Ford's bill, S. 2268, will reauthorize the FAA's Facilities and Equipment and Research, Engineering and Design programs for 2 years. The airport grant program is already authorized for the next two years. Senator Ford's bill also will provide more funding than that proposed by the Administration for Facilities and Equipment, and also for Research, Engineering and Design. The money is needed to upgrade the system and, for example, ensure that critical projects included in the National Airspace System (NAS) plan are completed in a timely manner.

The Administration is proposing a reauthorization package that would increase taxes to all users of the system. This includes proposed increases in passenger ticket taxes from 8 to 10 percent, freight waybill tax increases from 5 to 6 percent, and

fuel tax increases for non-commercial operators of 3 to 4 cents per gallon. All of this amounts to large increases in ticket prices and in freight charges.

What do we get out of it? More money pouring into the Aviation Trust Fund and no guarantee that it will be spent. With some $7.6 billion in the fund now, I have a difficult time explaining to folks that we should first raise taxes before spending what we have collected.

Turning to specific programs, I know Admiral Busey recognizes the need for the FAA to move towards completion of the National Airspace System Plan. The projects included under the plan are directed at creating a more efficient and safer air traffic control system. The Administration realizes the urgency of completing this task, yet the General Accounting Office reports that only 4 percent of the projects, in terms of costs, have been completed and, in addition, there are significant delays in 12 major projects. Lack of funding has not been the problem.

There are other areas where improvement is needed, and the hearing today will explore them.

I look forward to hearing from Admiral Busey and working with him in ensuring that our airport capacity is increased, and safety is maintained.

Opening Statement by Senator Kasten

Mr. Chairman, I am pleased that we will hear from Admiral Busey today regarding the reauthorization of certain FAA programs, whether just Facilities and Engineering and the Research, Engineering and Development programs, or also the Airport Improvement Program.

The F&E and RE&D programs are both financed out of the Aviation Trust Fund. That fund has continued to grow during times of mounting pressures on our system because of the increased traffic since deregulation. The Administration even proposes increasing the taxes going to the fund, with $7.6 billion in unobligated surplus already on hand.

Mr. Chairman, we heard the other day from Mr. Shane that their plan is to increase the taxes, then over five years spend the balance down to $3 billion. I can see a need for a certain balance, but I question $3 billion. I also oppose increasing the taxes until we see the spending taking place.

I will also be interested to hear Admiral Busey's testimony regarding the NAS Plan, which may not be the $27 billion project GAO now says it will be, but it is a program that has been, and is, suffering from many problems.

101ST CONGRESS
2D SESSION

S. 2268

To amend the Airport and Airway Improvement Act of 1982 for the purpose of extending the authorization of appropriations for airway improvements, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MARCH 9 (legislative day, JANUARY 23), 1990

Mr. FORD introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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A BILL

To amend the Airport and Airway Improvement Act of 1982 for the purpose of extending the authorization of appropriations for airway improvements, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) section 506(a)(1) of the Airport and Airway Improvement Act of 1982 (49 App. U.S.C. 2205(a)(1)) is amended—

(A) by striking "and" immediately after "October 1, 1989,"; and

(B) by inserting immediately before the period at the end of the first sentence the following: ", and

$14,625,200,000 for fiscal years ending before October 1, 1991, and $17,625,200,000 for fiscal years ending before October 1, 1992".

(b) Section 506(b)(2) of the Airport and Airway Improvement Act of 1982 (49 App. U.S.C. 2205(b)(2)) is amended—

(A) in subparagraph (B)(vii), by striking "and";

(B) in subparagraph (C), by striking the period at the end and inserting in lieu thereof "; and"; and

(C) by adding at the end the following new subparagraph:

"(D) for fiscal year 1991, $260,000,000, and for fiscal year 1992, $260,000,000.".

(c) Section 506(b)(4) of the Airport and Airway Improvement Act of 1982 (49 App. U.S.C. 2205(b)(4)) is amended—

(A) in subparagraph (A), by striking "and 1990" and inserting in lieu thereof "1990, 1991, and 1992"; and

(B) in subparagraph (B), by striking "and 1990" and inserting in lieu thereof "1990, 1991, and 1992".

(d) Section 506(d) of the Airport and Airway Improvement Act of 1982 (49 App. U.S.C. 2205(d)) is amended by striking "and 1990" and inserting in lieu thereof "1990, 1991, and 1992".

STATEMENT OF HON. JAMES B. BUSEY, ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION, ACCOMPANIED BY MICHAEL MOFFET, ASSISTANT ADMINISTRATOR FOR POLICY, PLANNING, AND INTERNATIONAL AVIATION; AND LEONARD GRIGGS, ASSISTANT ADMINISTRATOR FOR AIRPORTS

Mr. BUSEY. Thank you, Mr. Chairman. I will try to abbreviate my verbal comments so that you can get on with the questions that I am sure you have.

We appreciate the opportunity to appear this morning.

Senator FORD. I might say, Admiral, that your total statement will be included in the record as if given.

Mr. BUSEY. Thank you, sir.

We are pleased to be able to be here before you today. With me on my right is Mr. Michael Moffet, who is my Assistant Administrator for Policy, Planning, and International Aviation, and to your right, Mr. Leonard Griggs, my Assistant Administrator for Airports who has a lot of experience in airport management, having managed the St. Louis airport for some 10 years.

As you know, sir, on March 19, the Secretary transmitted to the Congress the administration's airport and airway reauthorization proposal. In our judgment, that bill provides the necessary tools for the FAA to meet the many challenges with which we are confronted. And I will briefly highlight the major features of that proposal, sir.

The FAA's facilities and equipment authorization request is the funding source for the purchase and installation of radar communications and air traffic control equipment, and is critical to the modernization of our air traffic control system. In our proposal, we are requesting an authorization level of $13.5 billion for a five year period from fiscal year 1991 through fiscal year 1995. This represents a proposed funding level 130 percent greater than the preceding five years of the program, and reflects I think the importance of this program to the future vitality of our system.

We are seeking an additional authorization of not to exceed $1 billion for use by the FAA Administrator if I determine that it is necessary to augment or substantially modify elements of the capital investment plan, primarily including a determination to establish more than the 23 area control facilities that we are presently talking about.

In research, engineering and development, we are asking for a five year reauthorization for our RE&D programs at an aggregate funding level of $970 million. This amounts to a 13 percent increase over RE&D funding appropriations in the prior five years.

We are requesting a three year extension of the current airport improvement program to put it on the same five year funding schedule as our RE&D and F&E programs, placing these programs on the same schedule will facilitate our long range planning and help me get some stability into our planning process.

The obligation levels we have requested total $7.7 billion from 1991 through 1995 fiscal years, and this amounts to a 28 percent increase over the amounts made available in the prior five year period.

A fundamental element of our proposal, sir, as you know, is the request for authorization of a passenger facility charge to assist local airports and communities in meeting the increased financial demands required to meet increased traffic and to upgrade or replace aging facilities. The ability to raise additional capital at the local level, complemented by an increased funding commitment at the Federal level, will provide needed flexibility in addressing growing capacity problems in the air transport system.

In formulating our PFC proposal, we have sought to achieve a proper balance between local empowerment and safeguards against the problems encountered with head taxes in the past. The framework we have developed will permit airports to initially assess a PFC of up to $3 per passenger and to use such revenues for activities of a type that would be eligible for airport grants.

We estimate that permitting airports to assess PFCs would provide $1 billion in additional revenue, which will help provide substantial additional resources at the local level to help us confront the national problem of system capacity.

We are also asking that 85 percent of the FAA's total budget be funded from the airport and airway trust fund. In this way, the users of the system, who derive the primary benefits of the FAA's efforts, would be responsible for their share of the FAA's costs, instead of these costs being subsidized from the general fund. Our studies reflect that an 85 percent contribution from the trust fund properly accounts for the 15 percent cost that is attributable to public sector and military use of the system.

Our five year reauthorization program request will draw down the projected fiscal year 1990 end of year trust fund uncommitted balance of $7.6 billion to less than $3 billion by the end of fiscal year 1995.

We think it is important that we take action now to ensure that we are in a position to shape our future air transportation system. Passenger enplanements have increased by nearly 65 percent since 1978 and are projected to increase by an additional 65 percent between now and the next century. Currently 21 airports experience more than 20,000 hours of delays annually and by 1997, without firm action, that number can almost double. We cannot afford to let today's capacity problems compound further or we think we will ultimately face a problem that will have grown substantially more difficult and more expensive to resolve. We also must push for additional safety and security improvements. These objectives will require significant funding over time to achieve.

We believe that the legislative framework we have proposed provides a solid foundation upon which to obtain the improvements that we all recognize are so important to the health of our air transportation system.

This completes an abbreviated summary of my statement, Mr. Chairman, and we now stand ready to deal with any questions you have for us, sir.

[The statement follows:]

STATEMENT OF THE HONORABLE JAMES B. BUSEY, FEDERAL AVIATION ADMINISTRATOR, BEFORE THE SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION, SUBCOMMITTEE ON AVIATION, CONCERNING AIRPORT AND AIRWAY REAUTHORIZATION LEGISLATION. APRIL 27, 1990.

Mr. Chairman and Members of the Subcommittee:

I appreciate having the opportunity to appear before the Subcommittee today to discuss airport and airway reauthorization legislation. With me today are: Michael Moffett, Assistant Administrator for Policy, Planning, and International Aviation, and Leonard Griggs, Assistant Administrator for Airports.

On March 19, the Secretary transmitted to the Congress the Administration's airport and airway reauthorization proposal. In our judgment, that bill provides the necessary tools for the FAA to meet the many challenges with which we are confronted. I would like to briefly highlight the major features of the bill.

Facilities & Equipment

The FAA's Facilities & Equipment (F&E) authorization is the funding source for the purchase and installation of radar, communications, and air traffic control equipment, and is critical to the modernization of our air traffic control system. In our proposal, we are requesting an authorization level of $13.5 billion for the five year period from Fiscal Year 1991 through

Fiscal Year 1995. This represents a proposed funding level 130% greater than the preceding five years of the program, and reflects the importance of this program to the future vitality of our system.

The funding requested for the F&E authorization will bring on line the new air traffic automation system and a variety of related systems that will improve the safety, capacity, and efficiency of our air traffic control system. Our proposed funding level recognizes the "bow wave" effect that has resulted from NAS Plan projects which have been stretched out or delayed in the past.

In our Fiscal Year 1991 appropriations request, we are seeking $2.5 billion, which represents an increase of 45% over Fiscal Year 1990. The same commitment to a high level of funding in the F&E program will be necessary over the next five years if we are to address the growing demands on our air transportation system.

Capital Investment Plan Augmentation

We are also seeking an authorization of not to exceed $1 billion for use if the FAA Administrator determines that it is necessary to augment or substantially modify elements of the FAA Capital Investment Plan, including, but not limited to, a determination that it is necessary to establish more than 23 Area Control Facilities.

Research, Engineering, and Development

We are also asking for a five year reauthorization of our Research, Engineering, and Development (R,E&D) programs, at an aggregate funding level of $970 million. This amounts to a 13% increase over R,E&D funding appropriated in the prior five years.

The funding level we are requesting in R,E&D will provide adequate funding for us to design the airport and airway system of the 21st Century. It will also enable us to pursue critical safety research into areas such as aging aircraft and to press forward with security research into explosive detection technology and related anti-terrorism security efforts. With the funding authorized under our request, we will perform research into the post-NAS Plan air traffic control system including satellite technology and will permit us to expand our human factors research programs.

It is important to recognize, however, that the R,E&D levels we are seeking are the minimum necessary for us to undertake an adequate level of research over the next five years. I cannot overstate the importance an aggressive research program plays in terms of enabling the FAA to meet not only today's challenges but the challenges and demands of tomorrow.

Airport Improvement Program

We are requesting a three year extension of the current Airport Improvement Program (AIP) to put it on the same five year funding schedule as our R,E&D and F&E programs. Placing these programs on the same schedule will facilitate our long-range planning efforts.

The grant obligation levels we have requested total $7.7 billion over the Fiscal Year 1991 through 1995 timeframe. This amounts to an increase of 28% over the amounts made available in the prior five year period.

AIP grants are the FAA's mechanism to assist local communities in undertaking important airport projects, many of which will benefit the national system. Obligation levels for AIP have grown steadily from $250 million in FY 1970 to $1.425 billion in the current fiscal year. About $13.68 billion has been made available in airport grants since 1970, nearly three-quarters of which has been in the last decade alone.

The levels we are requesting for AIP grants will provide adequate development funds for essential facilities at smaller airports as well as support for larger airport development projects. We anticipate that AIP funds will contribute about 25% of the total

airport needs otherwise eligible for AIP grant assistance over the next five years.

Passenger Facilities Charge

A fundamental element of our proposal is the authorization of a passenger facility charge (PFC) to assist local airports and communities in meeting the increasing financial demands required to meet increased traffic and to upgrade or replace aging facilities. The ability to raise additional capital at the local level, complemented by an increased funding commitment at the Federal level, will provide needed flexibility in addressing growing capacity problems in our air transportation system.

In formulating our PFC proposal, we have sought to achieve a proper balance between local empowerment and safeguards against the problems encountered with head taxes in the past. The framework we have developed will permit airports to initially assess a PFC of up to $3.00 per passenger and to use such revenues for activities of a type that would be eligible for airport grants.

After the first year of the program, airports which elect to charge a PFC will forego $0.50 in entitlement funds for each $1.00 of PFC revenue collected. Those foregone entitlement funds will

be placed in the discretionary fund of the airport grant program to enable us to address the most pressing capacity and safety issues.

The Secretary is called upon under our proposal to develop and issue regulations that will expand the types of eligible projects for which PFC's may be used, and may provide on a case-by-case basis for PFC's in excess of $3.00. Additionally, no passenger may be charged more than two PFC's on a one-way trip.

We estimate that permitting airports to assess PFC's will provide $1 billion in annual revenue, which will provide substantial additional resources at the local level to help us confront the national problem of system capacity.

Trust Fund

We are asking that 85% of the FAA's total budget be funded from the Airport and Airway Trust Fund. In this way, the users of the system--who derive the primary benefits of the FAA's efforts--would be responsible for their share of the FAA's costs, instead of those costs being subsidized from the General Fund. FAA studies reflect that an 85% contribution from the Trust Fund properly accounts for the 15% cost that is attributable to public sector and military use of the system.

We are also seeking an increase in user fees to generate adequate revenues for the Trust Fund. Ticket taxes would increase from 8% to 10% and the waybill tax would increase from 5% to 6%. The aviation gas tax would increase from 12 cents to 15 cents, and the tax on jet fuel from 14 cents to 18 cents. The international departure tax, which was recently increased by the Congress, would remain the same.

Our five year reauthorization program will draw down the projected FY 1990 end of year Trust Fund uncommitted balance of $7.6 billion to less than $3.0 billion by the end of Fiscal Year 1995. Without the increased user fees we are seeking, the funding we are proposing would result in a $1 billion deficit in the Trust Fund by 1994.

Need for Action

It is important that we take action now to ensure that we are in position to shape our future air transportation system. Passenger enplanements have increased by nearly 65% since 1978 and are projected to increase by an additional 65% between now and the next century. Currently 21 airports experience more than 20,000 hours of delays annually and by 1997, without firm action, that number could almost double. We cannot afford to let today's capacity problems compound further or we will ultimately face a

problem that will have grown substantially more difficult and expensive to resolve. We also must push for additional safety and security improvements. These objectives will require significant funding over time to achieve.

We believe that the legislative framework we have proposed provides a solid foundation upon which to obtain the improvements we all recognize are so important to the health of our air transportation system.

That completes my prepared statement, Mr. Chairman. I would be pleased to respond to questions you may have at this time.

Senator FORD. Thank you very much, Admiral.

My good friend and ranking member, Senator McCain, is here, and I will ask him if he has an opening statement or any comments he wants to make before we go into the questioning period. Senator McCain?

OPENING STATEMENT BY SENATOR McCAIN

Senator MCCAIN. Thank you, Mr. Chairman, and welcome, Admiral Busey. We are glad to see you.

I think this a timely hearing not only from the obvious standpoint of the expiration of two of the three capital accounts at the end of this fiscal year, but also following the recent hearings we have had on airline competition. Even if we were to correct all the imperfections existing in today's deregulated industry environment, we would gain little if we do not have the physical ability to cope with the increasing demands on our air space.

Mr. Chairman, I think it is obvious that the entire subject has been framed by the subject of finances, who will pay for how much and when. We find ourselves in the situation we are in today regarding the trust fund and aviation spending because of a lack of trust. This is not something new. The issue of capital versus operational spending was first addressed in the early 1970s. Nor is it something which is unique to a particular party or branch of government.

The fact remains we are in a difficult position. We are now facing a real rebellion on the part of the users who could be called the payers. The administration has proposed a bill which calls for large increases in out-year spending resulting in the trust fund's unobligated balance being cut by more than one-half over the next five years if we increase the payers' burden by 25 percent today. By way of a guarantee to the payers, the administration basically is asking us to trust them.

On the other hand, if I read the Chairman's bill correctly—and I listened carefully to what he is saying—he proposes a two year reauthorization of the expiring capital accounts so that all the accounts will be on the same cycle. The Chairman seems to be saying we in government should take a couple of years to build trust with the payers before we ask them to shoulder an increased burden. I am inclined to believe the Chairman's approach is a very responsible one, especially if I view it from the point of view as a payer when we are looking at $7.6 billion accumulated in the trust fund.

I do not know what the solution to the problem is. I know we must take the necessary action to ensure the payers that we in government are committed to the best aviation system possible and we are being honest when we ask them to finance its construction.

Thank you, Mr. Chairman. Thank you, Admiral, for being here.

Senator FORD. Thank you very much, Senator McCain.

Admiral, I have not only my own questions, but we have Senators Bentsen, Bumpers, Bond, Burdick, and Conrad who have submitted questions to me, and they probably deal directly with an issue with which they are primarily concerned.

But let me start with capacity in my first question. The administration has stated numerous times that no new airports have been

built since Dallas-Fort Worth in the 1970s. What help does the FAA provide communities that are willing—and I underscore willing—to make major improvements to existing airports that will improve capacity?

Mr. BUSEY. Sir, as you know, we in the FAA, of course, do not build airports. Our job is to provide the objective advice, counsel, expertise to local communities to enable groups that are trying to expand a local airport capability, to provide them with the tools that they need to educate their populace, to gain public support for the concerns that the local population may have with airport growth. Noise is a big issue that we have to deal with on an ever-increasing basis. So, advice and counsel and support is the primary role that we have in the FAA.

Of course, along with helping them through administration of the grant program, we advise them of the funds that may be available to them from a study standpoint. We advise them of the necessary steps that they have to go through statutorily, and then we prioritize their needs. We do the analysis to see what kind of capacity improvements will be added by their thought process, and we also do an analysis of the contribution that improvement in capacity at a local airport may contribute to the overall national air space system.

When all these factors come together, that helps us prioritize the needs of a local community, and then we are better able to provide them the Federal funds necessary to get things rolling.

This is why we are so interested in the passenger facility charge because we think it gives the local community an opportunity to have funds to generate some funding leverage, in coordination with Federal funding, to gain the quick dollars that they need to make capacity improvements.

Senator FORD. You are saying, though, that an airport does not move until you approve it.

Mr. BUSEY. I think what I am saying is that our participation with a local airport is really necessary. It is a teaming relationship, but the public support at the local level is what is so very important.

Senator FORD. Well, do you believe the communities then that are willing to put up substantial amounts of their own money for airport expansion should have any priority over those who rely almost totally on Federal funds?

Mr. BUSEY. Yes. I think that that is clearly a contribution that we would like to see. We cannot fund all of the airport improvements in local communities out of the Federal dollars that we have available to us. So, local contribution is, of course, very, very important. And I think our experience is that most of the airports that we are dealing with from a capacity standpoint trying to improve the capacity are certainly participating with their own local funding.

Senator FORD. Before I get to Senator Bentsen's question, give me a quick read on the Raleigh-Durham system that we refer to as Quick Scan. It shows potential for immediate airport capacity gains. Can you give us an update on that?

Mr. BUSEY. Yes, sir. The normal precision surveillance radars that we have in place at airports scan the environment about every

five seconds. It takes five seconds for the radar antenna to make a sweep to gather the data and present that to a controller. So, a controller that is controlling aircraft on closely paralleled runways where there are near-simultaneous approaches only gets a look at that radar return every five seconds.

What we have done at Raleigh-Durham on an experimental basis is put a scanning antenna on a precision radar which will give a target update to the controller every one-half second. It is a much more rapid return, builds the confidence of the controllers, builds the confidence of the pilots by letting them know that their radar return is being scanned by the controller in charge of directing traffic into those runways every half second.

Penetrations of the non-transgression zone between runways can be detected very, very quickly by the controller and he can give immediate corrective action to get aircraft out of that zone. The precision radar enables the controller then with a great deal of confidence and accuracy to handle approach landing rates in instrument weather conditions very similar to the VFR arrival rates that contribute so much to capacity.

So, it is a very valuable tool. We are in the final stages of evaluation, and I intend to explore ways to get this capability into the system as soon as possible.

Senator FORD. Now, this is Senator Bentsen's question for you, Admiral. I understand the FAA has targeted Mathis Field in San Angelo, Texas for the new ASR-9 radar, but has indicated this will not be installed there until the late 1990s. San Angelo has demonstrated a critical need for radar not only because of dense traffic, but also because of drug interdiction work.

Could you not supply another radar like the ASR-7 in the interim until the 9 can be installed?

Mr. BUSEY. Yes, sir. The ASR-9 is, of course, our new air surveillance radar, highly accurate and highly desirable radar from the air traffic controller standpoint because it enables them to see weather on the scope and also to pick up small targets. It has the capability of detecting a one square meter target out to 60 miles, which is pretty significant. Our experiences to date indicate that the radar can track sea gulls and clearly can track small general aviation aircraft.

I am aware of the situation at San Angelo. We are delivering these radars at the rate of three per month now, but the installation, the checkout, and the operational testing and the turnover to our air traffic control systems throughout the country is proceeding much slower than the delivery of three per month.

We have targeted an ASR-9 radar for San Angelo. The first radar in Texas went in in Harlingen, Texas, because we did not have coverage on that section of the border in south Texas. We have targeted a radar. It will be grounded in San Angelo, if memory serves me correctly, in the spring of 1992, and will be operational a few months after that.

I have looked into other radars. There are none available because what we are doing as we land an ASR-9 radar in a facility that presently has a 7 or an 8 radar, we have to wait until we commission the 9 radar. Then we can remove the 7 or the 8 radar. We have looked at those possibilities, and I am advising the Senator

that I think that the local's best possibility is to let us continue with the ASR–9 because I simply cannot get a 7 or 8 in there any quicker. In fact, it would be a little longer delay. But I think our responsiveness of getting one there by 1992, when we look at the priorities for installations that we have, certainly is reasonable and recognizes our concern for coverage in that part of the border.

Senator FORD. Admiral, I am going to yield to Senator McCain. Since I have questions that they want for the record from other Senators, I would be jeopardizing John's time. So, I am going to go ahead and let him proceed, and then I will come back and ask you some other questions.

Senator McCain?

Senator MCCAIN. Thank you very much, Mr. Chairman.

Again, welcome, Admiral. We think you are doing an outstanding job under very difficult circumstances.

Are you doing anything about joint use? Are there any negotiations ongoing with the Department of Defense on this issue?

Mr. BUSEY. Yes, sir, Senator. What I have done in the last few months, once I got Mr. Griggs in place as my new Assistant Administrator for Airports, he is my liaison person with the Department of Defense, Secretary Skinner and Secretary Cheney have discussed the joint use issue and the base closure issue, and they have come to an agreement that we in the FAA need to work very closely with the Department of Defense so we are involved on an early on basis of when base closures are coming up, when joint use opportunities are presenting themselves. So, I have the coordination set up now at that senior level with the Department of Defense.

Insofar as joint use is concerned, we are pressing on, working with the Department of Defense and the Air Force, and the State of Illinois. The first real joint use installation coming up will be at Scott Air Force Base in Illinois near St. Louis. Mr. Griggs is very familiar personally with that, and if we can address that any more, he would be my person to suggest any more details for you.

Senator MCCAIN. Do you need any congressional action?

Mr. BUSEY. I do not think we need any congressional action now, sir. I think it is too soon. We are looking very closely at the latest proposals from Defense on base closures to see whether some of those bases near communities where airport expansions or new airports are being considered offer an opportunity to shift to those Air Force Bases. My push is that I do not want to see us lose any concrete, any airports, in the system. But I think it is too soon to tell whether we need any legislation that specifically enables that coordination. It is working well right now.

Senator MCCAIN. Well, I think it is an area that we should really focus on. There are going to be numerous bases closed, and those airports will be there. I know that many times they are not desirable geographically, but clearly that is an opportunity to avoid having to pour concrete and spend trust fund money.

Do we need some form of national noise policy?

Mr. BUSEY. Yes, sir, I believe we do. The national transportation policy that was recently published by Secretary Skinner addresses noise. I am addressing it in more detail in the FAA strategy that is flowing from the national transportation policy that I hope to have publicly available in the next 30 to 60 days.

And it is my intention, in working with the airline industry, with the other users of the system, that we need to work together to educate our public. We simply cannot make noise go away. And I think we have to realize that with the continuing growth in aviation, noise is going to become more and more of a problem. We are pushing the state of the art right now with the stage 3 aircraft. We simply do not see any technological advances in quieting engine noise beyond that.

So, we need to come to grips on a national noise policy that does several things. We have to work with state and local governments to get a handle on restrictive zoning around airports that are costing us a lot of money for soundproofing, et cetera. We need to have a national policy approach concerning the phase-out of stage 2 aircraft and moving to an all stage 3 aircraft fleet, and we need to better educate the public. And, of course, we from the FAA need to continuously work to change arrival and departure paths to try to accommodate noise concerns of our local populations.

Senator MCCAIN. Senator Ford's legislation, Admiral, basically reauthorizes F&E and R&D for two years, which would then put it in consonance with the AIP reauthorization. What is your problem with that?

Mr. BUSEY. What I have searched for since I have been aboard, Senator McCain, is more stability and continuity in the FAA organizational structure. I have pushed for the five year authorization to try to give me that stability so I can concentrate the planning and the budgeting attention that my work force has to constantly work on as we come through more frequent reauthorizations. I am trying to concentrate on that to help us do a more accurate job of overall planning. That is why we have proposed going the other way, a five year period of stability that we think accurately outlines our F&E and R&D costs and matches that then with the remaining period that we have asked for, an extension period, for the AIP program. So, stability is what I am after.

Senator MCCAIN. What about if we reauthorized AIP and the other two at the same time for five years?

Mr. BUSEY. That is what we would like to see is the F&E——

Senator MCCAIN. Starting right now.

Mr. BUSEY. Starting now.

Senator MCCAIN. AIP also.

Mr. BUSEY. AIP also, yes, sir.

Senator FORD. I would like to see your term a little longer too.

Mr. BUSEY. And, Senator, in that regard I have been saying publicly that I intend to be around for a while.

Senator FORD. I have a little piece of legislation to take care of that, you know.

Senator MCCAIN. The administration has promised or committed to spend the trust fund down from $7.7 billion to $3 billion and some. Right?

Mr. BUSEY. Yes, sir. Less than $3 billion.

Senator MCCAIN [presiding]. Less than $3 billion.

What assurance do we have of that, number one? And number two, why not spend it all?

Mr. BUSEY. Several points there. From an insurance standpoint—and I do not want to get into this thing of trust us. You articulated that, Senator, early on.

But my feeling is that we have worked hard with OMB. We have the administration support for this five year reauthorization proposal. The budget submission that is on the Hill is in total consonance for the first time in some period of time with the reauthorization period that we are asking for.

Secretary Skinner and I have publicly committed to a desire to spend down the trust fund.

The less than $3 billion balance, if I have to take the decision, which is highly likely, that consolidation into the 23 ACFs that the original NAS plan is based on, that I feel that puts us in a very vulnerable position, and I am not sure at this stage of the game that I want to commit to consolidating that much.

The additional $1 billion that I have asked for as a so-called contingency in this five year reauthorization, if that comes to pass, that will take the uncommitted balance down to less than $2 billion. With the uncertainties of being able to measure the revenue stream coming in from the user fees that are paid, the gasoline tax, the ticket tax, the waybill tax, projecting what that revenue stream will be five years out, we think that that balance of under $2 billion is reasonable to look at from this period of time.

But I cannot give you any guarantee that the budget requests will continue to equal the reauthorization request, and the budget request that we have now with the four year additional funding stream that is articulated in that budget spread—I cannot give you any guarantee, but it is our intent to continue to work hard to spend down that balance for the purpose for which it has been collected.

Senator MCCAIN. We hear from time to time some pretty graphic stories about your controllers being overworked, particularly in centers like Los Angeles and New York. Has anything been done there?

Mr. BUSEY. The pay demonstration project that you are aware of, Senator, that was put into place last year was designed to move controllers into the New York, Los Angeles, San Francisco and Chicago areas, into very difficult to fill areas because of cost of living and the pressures of the workload. We are beginning to see indications that that 20 percent bonus pay is beginning to attract applicants for those positions that have been previously hard to fill.

We do not have the full performance level percentages that I would like to see in those very busy control centers and radar facilities, but I think that we are beginning to grow that way. I think, as I look back, that the FAA has done a fine job over the last nine years of replacing the some 10,000 controllers that were lost as a result of the strike back in the 1981 time frame. We still have a ways to go.

We are doing staffing studies in all the facilities so we have a good handle on what is the workload requirement. We have contracted out the training in the en route centers and we are providing simulation for training of controllers in the radar facilities so as to be able to reduce the workload on the professional controller work force.

I see our overtime pay is trending down, which is a measure I watch, which tends to indicate to me that we are reducing that additional workload on our controller work force.

I intend to continue to increase the controller work force by hiring another 495 people in fiscal year 1991, and that growth will continue. But as you know, it takes from one to three years to fully qualify an FPL. As I move experienced controllers from one facility, a low level facility, into the Chicago or New York or San Francisco area, they lose their full performance qualification level when we move them. They have to requalify at that new facility. So, it is a timing problem. I am trying to work this year to find PCS dollars in my operations accounts to make the necessary moves of people so that we can continue to grow the controller work force.

But I can tell you, sir, that I do not see dangerous overworking of our controller work force at any of our facilities. Is it a stressful and a heavy workload at times in our hub activities when we have concentrations of arrivals and departures? The answer is yes. Is it unsafe? My answer is no. And we will continue to work and control the traffic to make sure that it does not become unsafe.

Senator McCain. Let's go back to one of your and my favorite subjects, slots, for a minute. Clearly the tempo and numbers of flights in commercial aviation and general aviation throughout the country continues to increase. Airport capacity does not keep up with the increase in traffic, thereby causing more and more airports to approach or become slot limited.

Have you got any long-term ideas as to how to address this problem yet besides pouring more concrete?

Mr. Busey. There are other mechanisms that we are investigating. And of course as we have discussed in the past, Senator, there is a new proposed rulemaking that is in process between FAA and the Department of Transportation that we think gives us the potential of providing relief for new entrants into slot-controlled airports. We only have four now. And I think that that will provide an opportunity in this deregulated environment for the new entrants to gain access to the slot-controlled airports.

But short of improving arrival rates with technology such as Senator Ford asked me about earlier, the rapid runway scanning, which gives us the potential to move more traffic in an IFR situation, we have to explore the development of that kind of technology so that we can move closer to a VFR situation. We really have no problem with arrival rates at congested airports in VFR conditions. It is only when the weather becomes more marginal and we have to go to instrument flight rules that we have to slow down the arrival rates.

Senator McCain. In some of them, you do not have enough gates, do you, Jim?

Mr. Busey. That is true. We do not have enough gates. But again, I can jump back to the passenger facility charge. That will give local airports a funding stream opportunity to expand their gates, to open up airports for more competition and be able to handle that additional traffic. And that, in conjunction then with new concrete where it is needed in the form of new airports or high speed taxi ways, better access to the ramps, and in conjunction with our continuing to modernize and reshape the air space com-

mand and control, are the techniques that we are working on and will continue to work on to improve that capacity at congested airports.

Senator McCain. Some time ago there was a particular heroic incident, the details of which escape me now I am sorry to say. But I do remember that the pilot who was honored for his incredible feat—again, I cannot remember exactly what it was. It happened to be his next to the last flight because he had reached the age of 60. I believe it was United.

Mr. Busey. Yes. This was the cargo door on the United flight out of Hawaii I believe that you are referring to.

Senator McCain. That was his next to the last flight because he was deemed too old to continue as a pilot because of the retirement rules that we have.

Do you think that whole issue should be looked at?

Mr. Busey. Yes, I do, and we are continuing to look at it. But, Senator, I have not been persuaded personally by any of the medical evidence or any of the arguments or the debates that I have familiarized myself with these last nine months. I have not been convinced that we have any documentable medical evidence that would cause me to change that 40 year old rule that age 60 is the cut-off line for airline captains flying in a passenger carrying capacity.

The evidence I have seen tends to indicate to me that if we reopen the bidding, we should seriously consider lowering that age because the incidence of incapacitation in the cockpit tends to indicate that it can occur at a younger age than age 60. So, because of those indications, we need to continuously look at this.

I intend to focus over the next period of time on how Boeing Aircraft Corporation progresses. They have recently changed the mandatory retirement age of their test pilots at the Boeing plant, extended it on out beyond age 60. They have some pretty stringent physical examining processes under way. We intend to monitor that because that offers us the opportunity of some fresh and very detailed medical evidence.

Senator McCain. Would you be interested in doing some kind of a test program with the airlines?

Mr. Busey. Yes, I am interested in that. Of course, we have the union problems that we would have to face in that regard.

For example, we just had an incident earlier this week of an incapacitation of a pilot on a commercial flight in a two-man cockpit. I believe the pilot was in his mid-40s and was incapacitated. We don't know whether it was a gall stone, a kidney stone or appendicitis or something of that nature. The copilot did a magnificent job, as he was trained to do. There was no problem involved there.

But we need to consider some sort of an experiment with the airlines and work it out with them, with the unions, on a very careful basis because there are pros and cons to this kind of an example.

Senator McCain. I am required to go over and vote. So, we will have the hearing stand in a brief recess pending the return of the Chairman, which will be momentarily.

[Recess.]

Senator Ford [presiding]. Earlier I indicated an interest by Senator Bentsen in the San Angelo, Texas, Mathis Field situation, and

Senator Bentsen is here now. So, I will let him go and ask his questions, and then Senator McCain and I will continue, Admiral.

Senator Bentsen?

Senator BENTSEN. Thank you very much, Mr. Chairman.

Admiral, I understand you answered most of this question. I would just like to hear it myself.

Mr. BUSEY. Yes, sir.

Senator BENTSEN. We feel so strongly about the problems at San Angelo where you have had an increase in traffic and greater use by Customs and Border Patrol, and you have had so many aborted landings because of the lack of having state of the art or even any radar there. And there has been some debate as to whether or not we should find something that is a used radar that is being replaced or we should wait until we have the state of the art, the most sophisticated that is available, and what the time differential might be.

Would you elaborate on that for me?

Mr. BUSEY. Yes, sir. Our schedule for an ASR-9 radar, which is the most modern radar that we are introducing now into the air traffic control system, is to be in place at San Angelo in the spring of 1992. It is the April or May time frame. It will take several more months of working and calibrating the system before commissioning it, but we intend to commission it in the fall of 1992.

Our method of introducing this state-of-the-art radar into the air traffic system is that we place it at airports that we have selected on a priority basis, and then as we introduce it and finally cut it in for operations, then we shut down the older ASR-8 or ASR-7 radars, disassemble them and then leapfrog them, so to speak, into another airport.

We feel that our priority of trying to provide more accurate, state-of-the-art, up-to-date radar coverage for the border areas—we have installed one in Harlingen, Texas, an ASR-9. And I believe that we will provide the best coverage for your constituents if we stick to this schedule. I simply cannot get one of the older radars in there any faster because of their availability through this leapfrogging process.

But I think that your constituents are going to be very pleased with this system when it gets in. It can detect a one square meter radar target out to 60 miles. It has weather presented on the radar scope for the controller so that he can vector general aviation pilots around severe weather buildups, and this is the capability that we have not had before.

I will continue to monitor our system, and if an opportunity for an older radar presents itself at an earlier time, we will certainly consider that. We will keep you advised, but my advice now is that we stick with this schedule; for the state-of-the-art radar for San Angelo. It is about a $25 million installation process to get the radar totally integrated into that area with the building and the microwave data link that is required to provide this presentation to the controllers in the facility. And I think this is the best that we can do for you today.

Senator BENTSEN. Admiral, it has been a long time since I have personally shot an instrument landing, and I am out of date on the equipment. Is this quite a substantial advance, this particular piece

of radar that you are talking about that allows you to zero in on the weather and vector pilots around it and be able to identify something that small 60 miles out?

Mr. BUSEY. Yes, sir, it is. For example, I was in Salt Lake City earlier this week where we commissioned an ASR-9 at Salt Lake City's international airport, and the controllers there tell me that they are able to track sea gulls that are flying out over the Great Salt Lake.

Senator BENTSEN. That would drive them crazy at Corpus Christi.

Mr. BUSEY. But it is a significant advancement in state of the art. It is all solid state technology, fully integrated into our new modernized air traffic control system. It is the radar of the future. We are also buying a system for the Department of Defense for their air traffic control in their areas. So, it is a significant step and part of our NAS plan modernization progress.

Senator BENTSEN. Admiral, that is quite encouraging and I am delighted to hear it.

Thank you, Mr. Chairman.

Senator FORD. May I ask one question while I am listening to the two of you discuss this?

If you do find a 7 or an 8 that you would consider putting in here, does that mean then you would not put in the 9?

Mr. BUSEY. Yes, sir. Once we made the investment to put one of the lesser capable radars in at an earlier time, then it would not be prudent for us to consider——

Senator FORD. So, we are talking about 1992 for the 9 and sometime between 1990 and 1992 for something less?

Mr. BUSEY. Yes, sir.

Senator BENTSEN. You have convinced me, Admiral, and I will be talking to the folks at San Angelo and tell them that is the better part of the deal.

Senator FORD. A delay would be better so you could have the state of the art, don't you think?

Senator BENTSEN. You don't even know it is a delay.

Senator FORD. Thank you very much, Senator Bentsen. I appreciate your coming to the hearing this morning.

Admiral, many of the major programs in the NAS plan have been delayed years. And costs have risen considerably. They just keep bouncing up. Every time you ask a question it is a little bit higher. And this program, as you probably know, began in 1981.

Can you assure me that the major delays in cost increases are behind us?

Mr. BUSEY. Mr. Chairman, I would like to be able to assure you that they are all behind us. I simply cannot do that. Because we are pushing the state of the art of the technology so fast with the advanced automation system, the voice control switching system, the big programs that are still to come. I do believe that we have identified all of the unknowns.

I have spent a lot of time in the last nine months and, as you know, have made some changes in our structure at the FAA. I have brought in on an acquisition executive that is my right-hand man for providing some better focus and discipline in our acquisition system. We believe, as I sit here today, that we have identified

and made public all of the delays that we know about today, but there are still probably unknown unknowns out there. My experience in the procurement program tells me that there may be obstacles around the corner that we are not smart enough to foresee today. But to the best of my ability, I can tell you today that we think we have identified all of the significant schedule delays which add then to cost delays.

I am still delaying making the decision on settling the competition in the voice control switching system competition, which is the last major program that we have facing us in the original NAS plan. And I am going to continue to delay that until all of the testing, the operational testing, is complete on the part of the competitors that are still involved so that I have confidence that when I do make a decision and we start, that we will have the delays behind us, there won't be any future unknowns, and we will have confidence that the manufacturer I pick is ready to go into production.

Senator FORD. Admiral, I think a major part of the NAS plan was the consolidation of facilities into twenty-three area control facilities. Now, you have testified that the FAA is considering changing direction on this. What are the implications of such a change at this point, and when will that decision be made?

Mr. BUSEY. Yes, sir. From a background standpoint, you will remember that the original NAS plan, the 90 programs therein were predicated on the 1981 view that we would consolidate all of the radar approach control facilities. I believe there are 70 some, if memory serves me correctly, and then there are a hundred or so more radar tower facilities. And I will correct the record if my memory is not accurate on this, sir. But to consolidate all these into 23 area control facilities.

Since I have been aboard, I have asked for an in-depth study of that. I have outside expertise, technical expertise coming in. I have had my human resource management people involved. I am looking at the validity or the wisdom of this consolidation from a human factor standpoint, a quality of life standpoint, and primarily from a vulnerability standpoint. I am very concerned that if we consolidate into that few number of facilities, that in the event of power failures or earthquakes or floods, things of that nature, we just could not sustain the outages that that would offer. We continue to suffer outages in telephone activity many miles away from our enroute centers where buried cables are broken, and I am just not sure that we can suffer that kind of vulnerability.

So, the study results will be finished and I have sent them back several times.

This fall is the time frame when I expect to make a decision on consolidation, and the ramifications of that are that we will have to buy more equipment because we will have to equip more facilities than we are presently planning. That means we will have to buy more advanced automation systems, voice control equipment. And that is the purpose for the $1 billion contingency over the next five years that we have added into the reauthorization agreement.

Senator FORD. Admiral, I believe it is GAO that testified they were not too happy with what they saw with the host computers, but I think they looked at one in the State of Washington. They came back sometime later and testified that they were wrong. They

now find that they were being placed timely and that they were a vast improvement.

Do you find that latter statement to be true?

Mr. BUSEY. Yes, sir. I am very pleased by what I see with the host computer installation that has gone in at all of our en route centers. I visited I think 15 of those 23 facilities now. I go to the host computer room. Everywhere I go I talk to the operators, and to a person, they and the controllers on the floor tell me that this is a significant improvement, a very successful installation. It is a very reliable piece of equipment. The speed increase, the capacity increase is everything that it was designed to be and it gives us significant capacity capability to cover us on into and through the decade and into the next century.

I think it is a good example of a very successful new program that the FAA has brought on board in the last several years as part of the NAS plan.

Senator FORD. FAA has identified TNA technology as the first available technology capable of detecting explosives of the type and quantity which pose a threat to commercial aviation. Many do not consider the TNA the only or even the best answer to the problem.

Is FAA evaluating other technology?

Mr. BUSEY. Yes, sir. And I do continue to take the position that the TNA device, that is represented by the six that the FAA has procured and that we are in the process of placing throughout the world, is the only performing technology that we have available to us today to detect all forms of explosives, including the C-4 plastic Semtex type explosive.

We continue to explore other methods, vapor detection. We continue to encourage the development and the production of other explosive detection devices using the TNA technology. And it is my understanding that the French in conjunction with a U.S. firm will have a product available this fall that will perform the same type of explosive detection capability as that device which we have bought now.

I intend to continue to push the state of the art, to provide the R&D funding and development. We have commissioned the National Science Foundation, a board of experts, to take a deep look at the R&D programs that we have in the FAA, the monies that we have spent. We have asked them to tell us whether we are on the right track, whether we are investing Federal dollars properly to bring on technology.

I have had a preliminary report from them several months ago wherein I was verbally informed that their look to date tell them that we are right on track. We are investing in the right technology at about the right rate. I expect their final report this summer, and I do not anticipate any surprises there. But we will continue to push the system to get our great industry out there interested in developing this latest state-of-the-art technology.

Senator FORD. Let's talk about safety a little bit, and we get around to Senator Bumpers. I suspect you have heard from him or at least had a conversation with him. And I have known Senator Bumpers a long time. We served as governors together, made the decision to run for the United States Senate together. And so, I have known Dale for a long time. And I understand that he does

not get upset too often, but when he does, he is not ferocious, but—well, yes, ferocious is all right.

But he wrote to me about an incident which he witnessed. He was in one of the airplanes at Washington National last September 10. It has been some time. And I am sure he wrote you as you nod your head he has.

Apparently two airplanes landed almost simultaneously on intersecting runways with only seconds, and really a snap of the finger he said, between them. And Senator Bumpers questions the procedures that could allow this to occur.

Could you explain the incident for the record that Senator Bumpers witnessed? Was it recorded as a near miss? And then tell us what FAA's policy is.

Mr. BUSEY. Yes, sir. And the Senator and I did correspond in September through the November time frame with several exchanges. I did not have the pleasure of talking with the Senator about the incident. Perhaps I should have, and I will in the future.

He was on a commercial jet aircraft arriving at Washington National late in the evening, evening twilight time, and mentioned to me in the letter that he had noticed as they were coming down the river from the north—they were landing to the south on runway 1–8 at Washington National, which is the jet commercial runway 6,000 or so feet long—that he was sitting on the right side of the aircraft, noticed out the side another aircraft was paralleling their course. It was a four engine prop aircraft, and he became more concerned as he continued to see this aircraft descending beside them. That other aircraft was making a landing approach to runway 1–5, which intersects runway 1–8 at Washington National Airport.

He watched it to touchdown. Both of the aircraft touched down at approximately the same time and, of course, the four engine turbo prop aircraft that he observed landing on runway 5 stopped and was turning off the runway as the aircraft he was aboard was landing and continuing its roll-out on runway 1–8.

There was no incident recorded. There were no complaints filed. We had difficulty going back trying to search out this specific incident because there was no incident filed because it was a normal operation. The aircraft that he saw landing was a vertical and short takeoff and land capable aircraft. We have certification requirements at Washington National, a slot statutorily controlled airport, as you know, Mr. Chairman. So, we try to accommodate the traffic at that airport as best we can.

I fly in and out of National regularly in the front end of airplanes, so I am observing the short takeoff and land capable commuter aircraft that operate from that field. To maximize the traffic handling capability, we have certified the short takeoff and landing capable aircraft that they are capable of landing on the short runways, the intersecting runways and turning off well before the intersection. There is about 2,600 feet of runway available on runway 1–5 before it intersects runway 1–8. Most of the time, the STOL aircraft are able to slow to taxi speed and turn off at about 1,700 feet from the runway, so almost 1,000 feet before they would come in intersection with the runways.

So, it is not an unsafe situation. It is carefully controlled, fully certified. It happens every day, and it is done that way to maximize the traffic handling capabilities at the airport.

What we have done since then is to try to sensitize our controllers and sensitize the airlines operating in and out of there that if in the pilot's judgment and he has time, he should point out to the passengers on his aircraft that there is another aircraft landing. Don't be concerned. It's normal procedure. Perhaps in this case that would have been helpful if that explanation had been available for the Senator. But it is not an unsafe operation, and those aircraft are fully capable of stopping well before the runway intersection.

Senator FORD. Well, it is going to be difficult to convince Senator Bumpers that it was a safe operation. But I will leave that up to you, Admiral.

Mr. BUSEY. Yes, sir.

Senator FORD. Senator McCain asked you a question as it related to noise and if we should have a national noise policy. I was visiting last evening with some people, and they indicated that particularly airplanes in Europe are far ahead of us as it relates to noise abatement because of their rules which are more stringent and in place much earlier than we were able to get to it. Is that all I need to know? Is that true?

Mr. BUSEY. Yes, sir. And I believe what they were referring to, if my memory serves me correctly, the European Community has established a rule that no further stage 2, which are the noisier aircraft, can be introduced into the marketplace in Europe and that the present stage 2 aircraft will be phased out of that economy by—and I am guessing here. I will ask Mike to help me.

Mr. MOFFET. In fact, it is not true, Senator. The EC has not adopted the rule. They are considering the rule.

Senator FORD. They are considering the rule, but are they on balance better than we are overall?

Mr. MOFFET. I do not think that is an accurate representation. They certainly have noise problems, but they have not adopted an earlier phase-out of stage 2 aircraft which is the general concern.

Senator FORD. Do you think maybe that is propaganda put out by people who want to sell kits or whatever? [Pause.]

You all huddle.

Mr. BUSEY. I am concerned that the Europeans may be moving toward earlier noise control restrictions that we have. We are concerned economically because that may create a flooding of noisier aircraft into our marketplace.

And we think that as we work through ICAO, that we need to arrive at a national noise standard. We have economic considerations here for our traveling public that we have to consider. Our manufacturers have their order books full. We simply cannot get to an all stage 3 inventory of aircraft as rapidly as some would like for us to get there.

There are those stage 2 operators, particularly the cargo and the package operators or the parcel operators, that are seriously looking at investing in hush kits. We have to be aware that as they make that investment, they need to get an economic return from it. So, we have to be cautious about what kind of rulemaking we go

to. We do not want to drive somebody out of business that is competitively involved.

But we are concerned and are continuing to follow the European situation so that if they go to rulemaking—and I thought they had already done this—if they go to that kind of a stringent restriction, we want to be close behind to make sure that we are not unnecessarily impacted by it.

Mr. MOFFET. We have about the same percentage of our fleets in stage 3 aircraft as the Europeans.

Mr. BUSEY. And that is about what?

Mr. MOFFET. It's 40 percent.

Senator FORD. Senator Bond has asked for the record: Admiral, what is the FAA doing on the issue of infant safety seats aboard aircraft?

Mr. BUSEY. We went to a proposed rule on 1 March, Mr. Chairman, wherein we did two things. And that is out for public comment now, and the comment period was a 90 day period that closes the end of May. And then we will be reviewing the comments that we have received and begin moving towards a final rule. But we did two things.

First, we made it a mandatory requirement for all airlines to provide seats for those parents that wish to travel with their children in an infant restraint seat, and we also established that that infant restraint seat must be properly certified. And all those that are sold on the market with the National Highway Traffic Safety Administration Certification on them also have an FAA seal making them safe for air transport. So, we made it mandatory for the airlines to provide seating for parents that desire that seating for their children to travel in an infant restraint seat.

Secondarily, we asked for comments as to whether we, the FAA, should consider making it mandatory that infants under the age of 2 travel in infant restraint seats, recognizing the economic implications there. But I wanted to go out and hear from the public in that regard, give them a chance to tell us whether, yes, we think this should be made mandatory or, no, we are satisfied with the mandatory requirement that the airlines allow us to do that should we choose.

So, that is the status. We will wait for the comments. The comment period, as I said, closes the end of May. And then we will view those comments and go to final rule.

Senator FORD. I think Senator McCain discussed slots with you a little as that is one of his concerns.

I guess the last thing I want to visit with you about this morning is a little bit in the research arena. Senator Burdick and Senator Conrad both are interested in this particular question, Admiral.

A bill, H.R. 2581, which passed the House, has been referred to this committee. This bill appears to be an innovative way to enhance the research programs of the FAA by allowing FAA to make grants to colleges, universities and nonprofit research organizations for aviation research.

Do you think this would be a useful approach, or with your research and development arm, would that be sufficient? Would you kind of give me your thoughts now before we get into the consideration of this legislation?

Mr. BUSEY. Yes, sir. I think it would definitely be useful. One of the early-on questions I asked when I came aboard the FAA is what is our capability to reach academia. And I was rather surprised that we in the FAA did not have an opportunity to provide grants for aviation research and development in academia.

Senator FORD. If you didn't have to go through the Secretary, you could probably make that decision on your own and we can move forward.

Mr. BUSEY. It is a statutory issue, and what I found—we found a way to do it. We go through NASA who does have that capability, but I think it would be very helpful if we had statutory direct capability to reach academia. We have a lot of research and development issues facing us in the next 15 to 20 years, and I would like the opportunity to get more involved with academia from a basic research standpoint.

Senator FORD. Of course, we are going to need a great number of pilots. And many of our universities are thinking about getting into pilot training courses, but none seem to be moving aggressively in that direction. But when you need tens of thousands of pilots and they do make generally good salaries, it seems to me that they would be more interested than they are.

It also makes me believe that if you would give research to one of these universities or more that you might generate some interest in the field that would not necessarily have been there prior to that. And those that were doing training could also look forward to having a veteran's bonus on their application or something of that nature. So, I would hope that we would move in that direction. I think all of it combined—we need to whet the appetite of some of our universities to get into the field.

But, Admiral, how much research money are you targeting for human factors work? Would this include any work on how to train pilots?

Mr. BUSEY. No, sir, it doesn't include work on how to train pilots, and to my recollection in our 1991 budget submit, somewhere between $12 and $15 million in the aggregate is targeted towards human factors research.

We brought aboard, as I think you know, Mr. Chairman, an expert in human factors. We hired him away from NASA a year ago, Dr. Clay Fouche, who has involved himself over the last several months in putting together an FAA human factor strategic plan that touches all aspects of research and development from a human factor standpoint. He has been building his interfaces with NASA, with the military organizations because we are very careful and want to make sure that we are working in concert and not reinventing the wheel.

We are looking at such things as the glass cockpits. There is a lot of concern on the part of the aviation community as we move toward computer controlled aircraft. Are we keeping the pilots fully loaded and fully working?

The pilot training aspects—we are looking at that from the standpoint of should we change our rules for pilot certification. Should we require or can we require more use of simulator training? We have a lot of new modern simulators available to us. The market is building very rapidly. But can we directly transfer basic

learning skills from the simulator into the cockpit and therefore reduce the cost of pilot training? And Dr. Fouche is well involved in those studies and those deliberations.

I do not believe that we have fully appreciated the benefits that his skills and abilities bring to the FAA as I sit here and speak to you, but I am very confident that probably next year when we have a chance to talk in a hearing, I will have a better understanding of these benefits that he has brought to us. We are focusing a lot of attention, as the Congress directed us to, on human factors, and I think we are just beginning to scratch the tip of the iceberg, though.

Senator FORD. Admiral, it is obvious that on occasions I can be just a pussycat. So, I'm just real nice. We got through here in an hour and 15 minutes this morning, and everything has been amenable, and that sort of thing. So, I want you to know that there is the other side to Ford.

I hope also that you will consider instead of leapfrogging the various authorizations of FAA, that we need to bring them together, instead of having authorization now and then next year, go for another authorization beyond that and another one. If we leapfrog beyond that, you never coordinate the funding before Congress. We try to understand what you are doing. So, I would hope that at some point we could arrive at an agreement that in two years from now—and I hope we are both here—that we can visit as it relates to the total funding over the five year period of all of those needs of FAA.

And I understand where you are coming from, and you won't do anything the Secretary doesn't direct you to do, and he won't do anything Mr. Darman does not direct him to do. And I know all that, but at some point some of us have to arrive at what we believe is common sense. And I do not believe it would be common sense for you to have a disjointed authorization and appropriation budgetary future. And I think it would mean more if we could understand what all is going on at one time. And I think that would be impressive. Right now we just have one phase of it, and you have two other phases that I would like for everybody to understand.

So, as we travel down this path and we begin to do some things that are meaningful for air safety and to improve what you are doing. We will make the airways a little bit safer and keep you around for a while.

Mr. BUSEY. Yes, sir.

Senator FORD. This hearing is adjourned.

Mr. BUSEY. Mr. Chairman, may I thank you for your support last night in the late hours for our civil penalty extension. We appreciate that. I think that is a valuable tool that I need available.

Senator FORD. Well, we did the best we could, Admiral. And things always do better and work smoother at midnight on the Senate floor.

[Whereupon, at 10:17 a.m., the subcommittee was adjourned.]

[The following information was subsequently received for the record:]

Statement of John L. Baker

President

Aircraft Owners and Pilots Association

Thank you, Mr. Chairman. I appreciate the opportunity to submit my statement for the hearing record. My name is John Baker, and I am President of the Aircraft Owners and Pilots Association.

AOPA represents the interests of 300,000 individual members who own and fly general aviation aircraft to fulfill their personal and business transportation needs. That is 60 percent of the active pilots in the United States. AOPA members own or lease 62 percent of the aircraft in the general aviation fleet.

Mr. Chairman, we are aware that you are concentrating your efforts on reauthorization of FAA's Facilities and Equipment and Research, Engineering and Development accounts. We have important recommendations concerning the Airport Improvement Program, which we would be pleased to share with you, as well. But our statement today focuses on a review of the National Airspace System Plan and other programs under the Facilities and Equipment account. We must assess whether our present course represents the most prudent technological and economical solution to modernizing our air traffic control and airways systems. AOPA contends it is not, and FAA's course should be redirected.

Congressional Review of the NAS Plan

The past 10 years can be most charitably described as an unmitigated disaster. We have seen the National Airspace Plan costs grow from the original estimate of $11.8 billion to the current FAA estimate of $25-27 billion. We have seen every cost/benefit promise prove illusory. We have seen the timetable for completion slip by 8-10 years at a time when demand on the system is growing at a startling rate, a rate that calls into question the ability of the "modernized" system to handle the demand, if, in fact, it is ever completed.

AOPA has called upon Congress to conduct an in-depth inquiry into the concepts, management and implementation of the current floundering airways modernization effort. The timing of such an investigation could not be more appropriate. We are nearly 10 years into the program, and this is the year the entire program must be reauthorized by Congress.

We believe that both the users of the aviation system and the American public are entitled to an accounting. Persuasive in making the argument for an accounting are the efforts of the General Accounting Office. Since 1984, GAO has looked at 34 different programs in the modernization effort. This truckload

of studies has been universally critical. In November 1988, the GAO issued another in its long series of reports critical of the NAS Plan. GAO found that:

** The FAA's cost/benefit methodology was inadequate and user benefit was substantially exaggerated;

** The FAA lacks experience in large-scale procurement, causing it to underestimate the complexity of the task;

** The FAA failed to adequately plan, integrate and coordinate airspace, air traffic and airport projects within the agency;

** The FAA underestimated the need for additional research and development;

** The FAA incorrectly sought to utilize off-the-shelf technology and failed to consider the degree to which substantial amounts of additional computer hardware and software would be required; and

** There was inadequate upper-level project review prior to system contracting.

These findings are damning and speak for themselves. In addition to being years behind schedule and billions of dollars over cost, many of the FAA's airspace modernization programs have been overtaken by technology.

Technology has advanced to a point where initial implementation of a hybrid air traffic system linking satellites with a ground-based system, such as LORAN C, for communications, navigation and surveillance is feasible beginning in the mid-1990's. A hybrid space/earth system linking the Global Positioning System with ground-based, random-routing capability would provide much greater accuracy, reliability and integrity than the current system. It would also be significantly less costly to operate.

Strong encouragement from Congress can help ensure that an operational trans-oceanic space/earth system can be in place by 1995. By the year 2000, we believe a fully operational system can be a reality for domestic use in the en route environment, with terminal implementation following soon thereafter.

Every informed person in the country recognizes that the financial problems confronting this nation are staggering. In this era of tight fiscal constraints, the only rational approach to aviation system modernization is program prioritization and more responsible resource management. We do not have the luxury of throwing money at a series of disjointed projects with a hope that some will work. A continued ground-based, labor and

capital-intensive system with little flexibility and at best finite capacity for growth does not appear to be the appropriate route for the 21st century.

We should resolve to apply resources only to those airways modernization programs which are compatible with a hybrid space/earth system or which are necessary to ensure the safety and efficiency of the system during the transition. The remainder of our resources for F&E, as well as our technological focus, should be directed to developing the space/earth system of the future.

AOPA's Report to Congress

AOPA recently concluded an in-depth review of the nation's air transportation system. Our findings and recommendations are contained in a report entitled Aviation: The Future is Now. Our report to Congress includes a project-by-project analysis of 155 uncompleted airspace modernization projects.

Our analysis focuses on each project's compatibility with an integrated satellite and ground-based system or its role as interim technology necessary to maintain system safety and efficiency during the transition. AOPA identified 34 projects that can be targeted either for partial or total elimination.

As an attachment to our formal written testimony, we have provided a consolidated listing of our projected airspace modernization savings. Our estimated savings total $11 billion. This would reduce total airways modernization costs to approximately $16 billion. A complete project-by-project breakdown can be found in our recent report to Congress, copies of which have been provided to the Committee.

The FAA's mismanagement of the airspace modernization program, combined with the overwhelming complexity of the project and the cumbersome nature of the government procurement process, have almost paralyzed the agency's progress in implementing the plan. But the delays may actually be a blessing in disguise, because the next wave of technology -- satellites -- is now upon us.

The Advantages of a Hybrid Space/Earth System

Our call for the aggressive development of a hybrid space and earth system is merely the latest in AOPA's tradition of seeking to advance the technical development of aviation. Historically, AOPA has taken the lead in advocating important safety initiatives and technological advancement. AOPA was the first civilian organization to urge the installation and mandatory use of shoulder harnesses in light airplanes. We emphasized the benefit of stall warning indicators, and even

marketed and sold them to members, until ultimate adoption of these devices as standard equipment by general aviation manufacturers.

Over the years, AOPA has launched successful programs to improve the air-navigation marking system, to increase the availability of airport lighting, and create a new generation of community airports. Our organization first proposed the idea of marking runways according to their magnetic direction, an idea that became a worldwide standard.

AOPA members continually update their aircraft with state-of-the art technology as it becomes available. Just over 50 percent of the active general aviation aircraft in the country are fully instrument equipped, up from 30 percent in 1977. The percentage equipped with on-board weather radar has nearly doubled since 1977. More than 30 percent of the active fleet has been voluntarily equipped with LORAN C, which wasn't even available for aviation use until 1984. Satellite technology is the next phase, and our members are eager for the benefits.

The advantage of a hybrid space/earth system is that a large portion of the technology has been developed and tested, and nearly one-half of the satellites are in place. The U.S. government's Global Positioning System already has launched 13 satellites, which will provide three-dimensional position reporting. Based on the current launch schedule, all the GPS satellites are scheduled to be in orbit by the end of 1992.

The accuracy of this system for purposes of navigation will exceed that of today's ground-based VOR system. When combined with LORAN and other random routing technology, it promises the ultimate potential down the line of permitting precision instrument approaches to runways throughout the world without the need for future ground-based instrument equipment, such as the Microwave Landing System or conventional Instrument Landing Systems.

At the same time the U.S. is employing its GPS satellite system, the USSR has embarked on development of its own satellite air navigation system called GLONASS. Additionally, INMARSAT, a London-based multinational consortium that provides communication and navigational services to the maritime industry, currently has satellites in orbit providing prototype aeronautical services. According to the Future Air Navigation System committee (FANS) of the International Civil Aviation Organization, all 42 GPS and GLONASS satellites are scheduled to be in orbit by the end of 1992.

Once the U.S./GPS, USSR/GLONASS and INMARSAT cooperative agreements are implemented, global navigation will be possible. Indeed, the Department of Transportation conducted a study

concluded in September of 1989 to determine if an integrated space/earth system would be feasible. The study used GPS and LORAN C, and the results were very encouraging. Not only did the hybrid system work, it exceeded all expectations.

The test also demonstrated that non-precision approach capability is immediately achievable at virtually every landing place in the United States. The test further indicated that Category I Instrument Landing System precision instrument approach minimums are well within the ultimate grasp of the technology.

In addition to navigation, greatly enhanced communications and surveillance capabilities will be possible through the use of satellites. Communications between aircraft and the ground will be accomplished through satellite relayed voice communications and also through the use of data link. The NAS plan Mode S data link is not the only way, nor is it necessarily the best way of providing data link services. Currently, ARINC provides reliable satellite data link services to airline users, and COMSAT plans to offer satellite data link. These or similar satellite services could obviate the need for expensive ground based Mode S data link technology.

Automatic Dependent Surveillance is the third piece of the future communication, navigation and surveillance package. ADS will use satellites to provide three-dimensional position reporting for the air traffic control system. The information will be transmitted through the data link, from the air to the ground directly or via satellite. The advantage of ADS is it will permit a highly reliable and accurate surveillance system without the need for investment in expensive ground-based radar equipment, either en route or ultimately in terminal areas.

The technological advantages of a hybrid space/earth system are exciting. But those are not the only advantages. The FANS committee of ICAO has estimated that the new global satellite system will cost only about $1 billion annually to operate worldwide and, on a global basis, would save governments and the industry approximately $5.2 to $6.6 billion annually.

In these times of increasingly scarce resources, the substantial short and long-term cost savings inherent in transitioning to such a system are too good to pass up. If we begin the transition process now, we can save billions on some of the existing NAS Plan programs which will be unnecessary or incompatible with the system of the future.

Funding Requirements

As I have already indicated, AOPA's analysis suggests that approximately $11 billion can be saved by redirecting the FAA's airspace modernization effort and moving aggressively toward

implementation of a hybrid space/earth system. This would reduce total airways modernization costs to approximately $16 billion. It is on this premise that AOPA has developed the following funding recommendations.

AOPA proposes a ten-year dedicated effort to achieve implementation of a hybrid space/earth system, which we estimate will require an annual authorized level for F&E of $1.7 to $2 billion. Compared to FAA's estimated annual F&E needs of nearly $2.5 billion, our proposal would result in substantial yearly savings. The dollars we save on F&E should be targeted to other pressing areas of need -- such as airport capacity.

We have proposed an authorized level of $2 billion annually for the Airport Improvement Program. Considering that appropriations for AIP the last two years have equalled nearly $1.5 billion, we believe an AIP program of $2 billion annually is feasible as a result of the substantial savings on F&E under our proposal.

Funding for Research, Engineering & Development will require increases under our proposal to conduct the research necessary to transition to a hybrid space/earth system. We recommend a $300 million annual authorized level for RE&D.

Finally, we believe funding for Operations and Maintenance can be significantly reduced over the coming years because less ground based equipment and fewer operational personnel will be required when a hybrid space/earth system is implemented. We estimate that Operations funding could be reduced gradually over the next five years from $3.9 billion to $3.3 billion in FY95.

No Tax Increase

AOPA is outraged that the Bush Administration budget proposes to increase general aviation fuel taxes by 3 cents per gallon on avgas and 4 cents per gallon on jet fuel. Of course, the budget also proposes an unnecessary increase in the tax paid by consumers on airline tickets from 8% to 10%.

With $14 billion dollars languishing in the Aviation Trust Fund, how can OMB and the Department of Transportation claim that they need to have more money? Rather than trying to use the Aviation Trust Fund to help mask huge budget deficits, the Administration's time would be better spent prioritizing and trimming down some of the gold-plated projects in the FAA's NAS Plan.

Aviation industry projections prepared by AOPA and others confirm that any reasonably foreseeable spending levels for FAA programs over the next five years can be adequately supported by aviation taxes at their current level. In fact, those same projections establish that a sizeable surplus will continue to exist at the end of five years.

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Mr. Chairman, it is time to reevaluate our goals and take advantage of the next stage of technology. The question is not whether we will pursue this course, but when. We are counting on your leadership to help resolve that question by helping to place development and transition to a hybrid space/earth system on the fast track.

Thank you again for this opportunity, Mr. Chairman.

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